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Quick installation guide

Accessories

Please check and identify the supplied accessories.

☐ 1x Remote control



☐ 1x Audio/Video cable






☐ 2x Batteries



Important safety instructions

- 1) **Read instructions.** Read all the safety and operating instructions before operating the product.
- 2) **Retain instructions.** Keep the safety and operating instructions for future reference.
- 3) **Heed warnings.** Adhere to all warnings on the product and in the operating instructions.
- 4) **Follow instructions.** Follow all operating and use instructions.
- 5) **Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 6) **Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 7) **Water and Moisture** - Do not use this product near water for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
- 8) **Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
- 9) **CART** - A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- 10) **Ventilation** - Slots and openings in the cabinet provide ventilation, ensure reliable operation of the product, and protect it from overheating. Do not block or cover these openings. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. Do not place this product in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 11) **Power Sources** - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- 12) **LOCATION** - The appliance should be installed in a stable location.
- 13) **NONUSE PERIODS** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
- 14) **Grounding or Polarization** -
 - If this product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other), it will fit into the outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
 - If this product is equipped with a three-wire grounding type plug, it will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
- 15) **Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
- 16) **Outdoor Antenna Grounding** - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
- 17) **Lightning** - For added protection of this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- 18) **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric lights or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, take extreme care to keep it from touching power lines or circuits. Contact with them might be fatal.
- 19) **Overloading** - Do not overload wall outlets, extension cords, or integral convenience receptacles. This can result in a risk of fire or electric shock.
- 20) **Objects and Liquids** - Do not push objects of any kind into this product through openings. They may touch dangerous voltage points or short out parts, resulting in a fire or electric shock. Liquids of any kind should not be used on or around this product.
- 21) **Servicing** - Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 22) **Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power supply cord or plug is damaged,
 - If liquid has spilled or objects have fallen into the product,
 - If the product has been exposed to rain or water,
 - If the product does not function properly after following the operating instructions, contact Customer Service for technical support.
 - If the product has been dropped or damaged in any way,
 - When the product exhibits a distinct change in performance.This indicates a need for service.
- 23) **Replacement Parts** - When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 24) **Safety Check** - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- 25) **Wall or Ceiling Mounting** - Mount the product to a wall or ceiling only as recommended by the manufacturer.
- 26) **Heat** - Keep this product away from heat sources, such as radiators, heat registers, stoves, or amplifiers.
- 27) **Battery Usage** - Battery leakage may result in bodily injury or damage to the unit. In order to avoid battery problems, please follow these instructions.
 - Install all batteries correctly, with + and - aligned as marked on the unit.
 - Do not mix batteries (old/new, carbon/alkaline, etc.).
 - Remove batteries when the unit is not used for a long time.

Warnings, cautions and others



CAUTION!
TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE THE COVER OF THIS UNIT.
THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER
SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.


CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF
PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY
RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN
THE COVER AND DO NOT REPAIR YOURSELF. REFER
SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR
PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS
TO MOISTURE AND ENSURE THAT OBJECTS FILLED WITH
LIQUIDS, SUCH AS VASES, SHALL BE PLACED AWAY
FROM THE APPARATUS.

CAUTION! — POWER button

Disconnect the main plug to shut the power off completely. The
POWER  button in any position does not disconnect the
main line. Power can be controlled from the remote.

PRODUCTS WITH 525P PROGRESSIVE SCAN OUTPUTS NOTICE REQUIREMENTS

"CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION
TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS
PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN
THE PICTURE. IN CASE OF 525 PROGRESSIVE SCAN PICTURE
PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH
THE CONNECTION TO THE "STANDARD DEFINITION" OUTPUT.
IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPAT-
IBILITY WITH THIS MODEL 525P DVD PLAYER, PLEASE
CONTACT OUR CUSTOMER SERVICE CENTER."

THE FOLLOWING APPLIES ONLY FOR U.S.A.

CAUTION!

This equipment has been tested and found to comply with the
limits for a Class B digital device, pursuant to part 15 of the
FCC Rules.

These limits are designed to provide reasonable protection
against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio
frequency energy and, if not installed and used in accordance
with the instructions, may cause harmful interference to radio
communications. However, there is no guarantee that
interference will not occur in a particular installation. If this
equipment does cause harmful interference to radio or
television reception, which can be determined by turning the
equipment off and on, the user is encouraged to try to correct
the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different
from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for
help.

IMPORTANT FOR LASER PRODUCTS

1) CLASS 1 LASER PRODUCT

2) **DANGER:** Visible and invisible laser radiation when open and
interlock failed or defeated. Avoid direct exposure to beam.

3) **CAUTION:** Do not open the top cover. There are no user
serviceable parts inside the Unit; leave all servicing to qualified
service personnel.

CAUTION!

- CD-R/RW discs recorded using a personal computer or a CD
Recorder may not play if the disc is damaged or dirty, or if
there is dirt or condensation on the player's lens.
- Unfinalized CD-R/RW discs can be played, but not all time
information (playing time, etc.) will be displayed.
- Check the copyright laws in your country before recording
from DVD VIDEO, SVCD, Video CD, Audio CD, MP3 and
JPEG discs. Recording of copyrighted material may infringe
copyright laws.

Legal Notices Regarding Macrovision's Property Rights






"U.S. Patent Nos. 4,631,603; 4,577,216; 4,819,098; 4,907,093;
and 6,516,132."

"This product incorporates copyright protection technology that
is protected by U.S. patents and other intellectual property
rights. Use of this copyright protection technology must be
authorized by Macrovision, and is intended for home and other
limited viewing uses only unless otherwise authorized by
Macrovision. Reverse engineering or disassembly is prohibited."
"


Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby
Laboratories.

Disc information

■ Playable Disc types

Disc Types	Logos	Characteristics
DVD-VIDEO		This unit can playback DVD-Video discs and the region code is printed on the rear of the unit.
DVD - R/RW DVD + R/RW		DVD - R, DVD - RW and DVD + R, DVD + RW, discs written in the DVD-Video format and finalized.
Video CD (VCD) Super Video CD (SVCD)		Video with CD sound, VHS quality & MPEG-1 compression technology.
Audio CD		CD is recorded as a Digital Signal with better audio quality, less distortion and less deterioration of audio quality over time.
CD-R/RW (JPEG/MP3)		This unit can play CD-R and CD-RW discs recorded with Audio CD or Video CD format, or with JPEG/MP3 files. Close the sessions or finalize the disc after recording.

■ Recordable Disc types

Disc Types	Logos	Characteristics
DVD + R/RW		DVD + R disc written in the DVD + VR format. DVD + RW disc written in the DVD + VR format.

Notes:

The DVD-Video/DVD+RW/DVD+R/ Logos are trademarks of the respective companies.

For best result use discs with the above logos and that conform to specifications. The unit cannot play other discs correctly. Do not use irregular shaped discs (e.g. heart-shaped), as these can damage the unit.

It may not be possible to play CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW in all cases due to the type of disc or condition of the recording.

Unplayable disc types

The unit does not playback disc type listed below. If you try to play back these discs, excessive noise may cause damage to your speakers.

- 1) Unfinalized discs from other DVD-Recorders.
- 2) DVD-ROM (data disc), DVD AUDIO, PHOTO CD, SACD

■ Region Code of DVD-Video

This unit can playback DVD-VIDEO discs compatible with the region code printed on the rear of the unit.

Examples of playable DVD-VIDEO discs:



■ Audio System



Dolby Digital

Linear PCM



DTS (Digital Theater Systems)

■ Video System (NTSC & PAL)

This DVD-Recorder supports both NTSC&PAL systems.

■ Aspect Ratio



4:3 (Letter Box) Standard



4:3 Pan & Scan



16:9 (Wide-Screen)

■ Others



Audio : Appears at the beginning of a scene record with multiple audio languages.



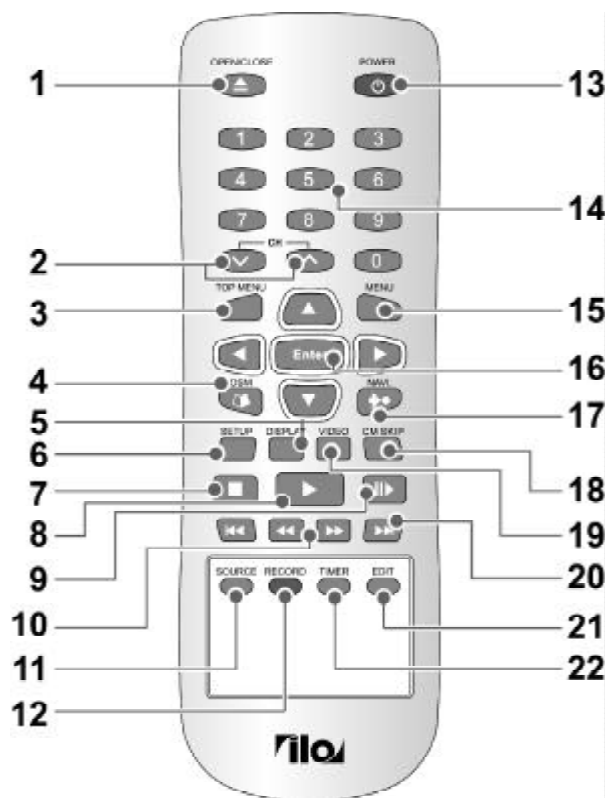
Subtitle : Appears at the beginning of a scene recorded with multiple subtitle languages.



Angle : Appears at the beginning of a scene recorded from multiple angles.

Controls and displays

Remote Control



- 1) Open/Close button (▲ OPEN/CLOSE)..... See Page 14
- 2) CH ▲▼ button (Channel) See Page 14
- 3) Top menu button See Page 20
- 4) On-Screen Menu button (OSM) See Page 15
- 5) Display button (DISPLAY) See Page 14
- 6) Setup button (SETUP) See Page 11
- 7) Stop button (■ STOP) See Page 14
- 8) Play button (▶ PLAY) See Page 15
- 9) Pause/Step button (||▶ PAUSE/STEP) See Page 14
- 10) F.F./REW. button(▶▶ F.F/ ◀◀ REW.) See Page 22
- 11) Source buttons (SOURCE) See Page 13
- 12) Record button (RECORD) See Page 15
- 13) Power button (⏻ POWER) See Page 11
- 14) Numbered button (1 ~ 9, 0) See Page 11
- 15) Menu button (MENU) See Page 20
- 16) Cursor (▲▼◀▶), Enter button (ENTER) See Page 11
- 17) Navigation button (⏮ NAVI) See Page 21
- 18) CM SKIP See Page 20
- 19) Video button See Page 26
- 20) Next/Previous button
(▶▶|NEXT/|◀◀PREVIOUS) See Page 22
- 21) Edit button (EDIT) See Page 13
- 22) Timer button (TIMER) See Page 19

To install batteries

- Open the battery compartment and insert the batteries. Make sure the polarity (+ and -) matches the marks inside the remote control.
- Do not use rechargeable type batteries.



Remote sensor

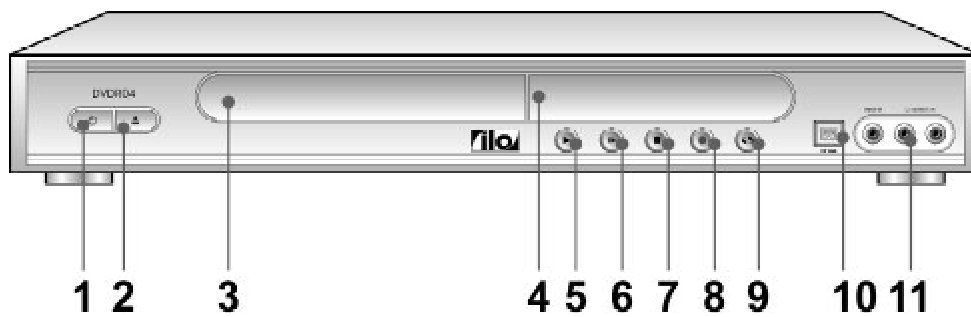
The remote has a range of approximately 5M and works best when pointed directly at the unit. (at angles up to 30° from the front of the unit)



Controls and displays

Front panel connections

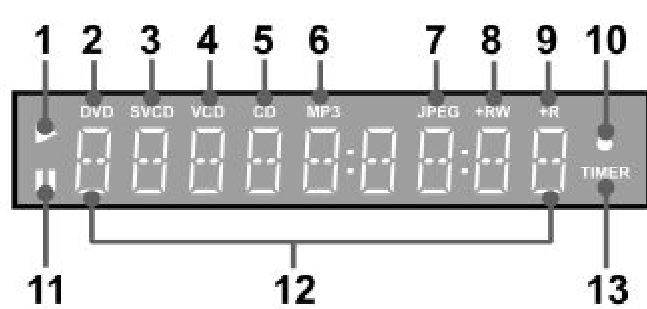
(for reference only)



Names of parts and controls

- | | |
|--|--|
| <ol style="list-style-type: none"> 1) POWER ON / OFF Button
Turns the recorder on and off. 2) OPEN/CLOSE Button
Opens or closes the disc tray. 3) DISC TRAY
Place discs gently in the tray. 4) DISPLAY Panel
Operation indicators are displayed here. 5) PLAY Button
Plays a disc. | <ol style="list-style-type: none"> 6) PAUSE Button
Pauses playing or recording a disc. 7) STOP Button
Stops playing or recording a disc. 8) RECORD Button
Starts recording. 9) SOURCE Button
Select equipment connected to the line inputs. 10) DV-LINK (IEEE-1394) Jack
Connect digital video camcorders to this DV jack. 11) LINE IN (VIDEO/AUDIO L/R) Jacks
Connects the input of external equipment. |
|--|--|

Display window



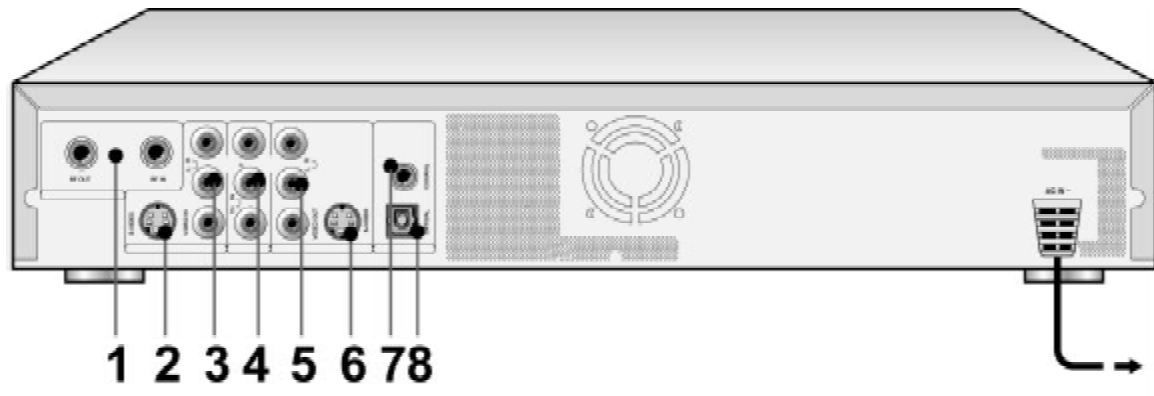
Display window function

- | | |
|---|---|
| <ol style="list-style-type: none"> 1) Play indicators 2) DVD indicators 3) SVCD indicators 4) VCD indicators 5) CD indicators 6) MP3 indicators | <ol style="list-style-type: none"> 7) JPEG indicators 8) DVD+RW indicators 9) DVD+R indicators 10) Record indicators 11) Pause indicators 12) Multi-information window 13) Timer recording mode |
|---|---|

Controls and Displays

Rear panel connections

(for reference only)



Names of parts

1) **VHF/UHF IN/OUT Jacks**

Antenna cables input and output.

Note: DVD signals don't go through here. Make proper connections before use.

2) **LINE IN (S-VIDEO) Jack**

S-Video signal input.

3) **LINE IN (VIDEO/AUDIO L/R) Jacks**

Composite signal input.

4) **COMPONENT VIDEO OUTPUT (Y/Pb/Pr) Jacks**

Component signal output.

5) **LINE OUT (VIDEO/AUDIO L/R) Jacks**

Composite signal output.

6) **LINE OUT (S-VIDEO) Jack**

S-Video signal output.

7) **DIGITAL OUT (COAXIAL) Jack**

Connects an amplifier or receiver having a digital input jack.

8) **DIGITAL OUT (OPTICAL) Jack**

Connects an amplifier or receiver having a digital input jack.

Connecting up

Before making connections

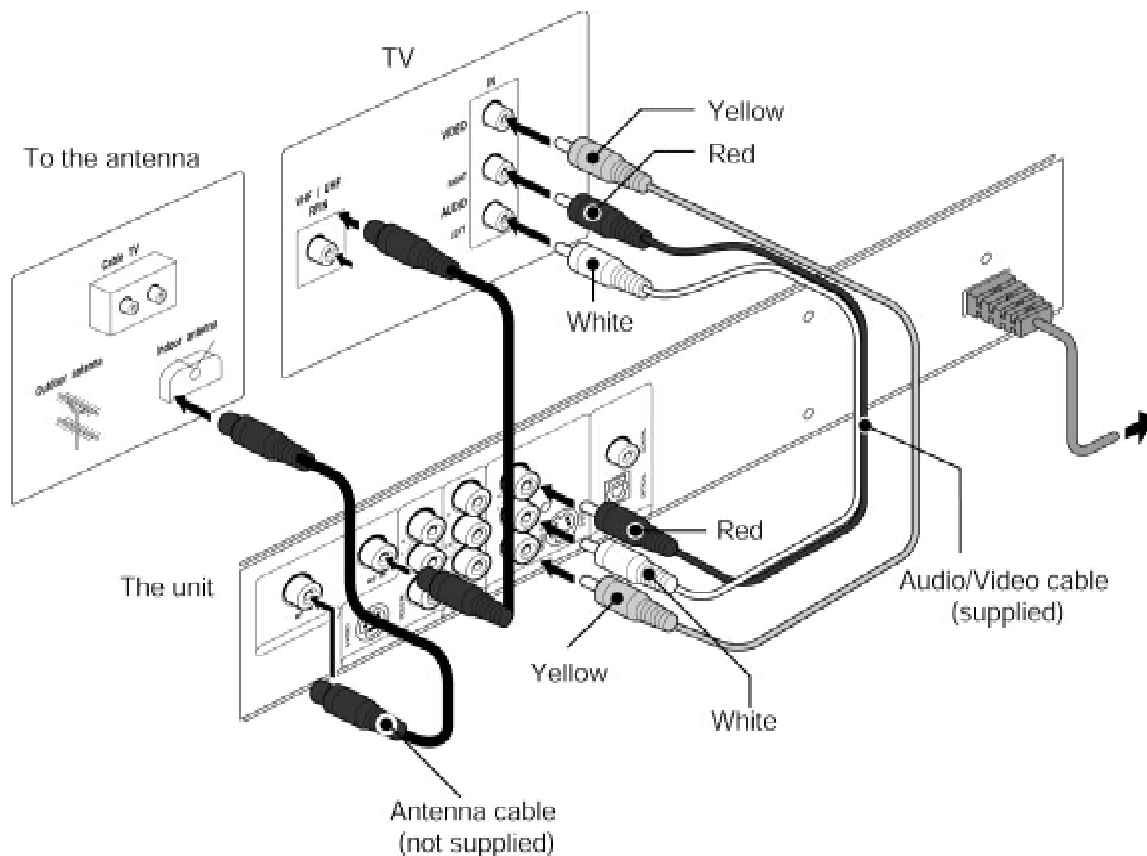
- 1) Do not connect the AC power cord until all other connections are made.
- 2) Connect VIDEO OUT of the unit directly to the video input of your TV. Connecting VIDEO OUT of the unit to a TV via a VCR may cause a viewing problem when playing back a copy-protected disc. You may also have a viewing problem when connecting the unit to an integrated TV/Video system.

Connecting the antenna cable and television

Before using the unit, follow the steps below to connect the unit to the antenna cable and TV.

Connecting to a TV with COMPOSITE jacks

You can use the COMPOSITE OUT jacks to connect the unit to TV.



Connect the unit directly to your television.

Do not place the unit on top of amplifiers or equipments that may become hot. The heat can damage the unit.

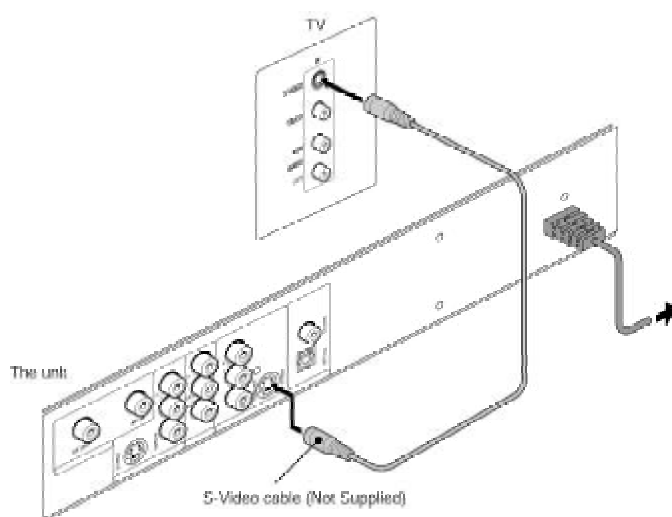
For better video quality

There are two types of connections (S-Video, and Component video) that provide high quality viewing.

1. S-Video out

Connecting to a TV with a S-Video jack

You can use the S-Video output instead of the standard video out jacks to connect this player to TV.



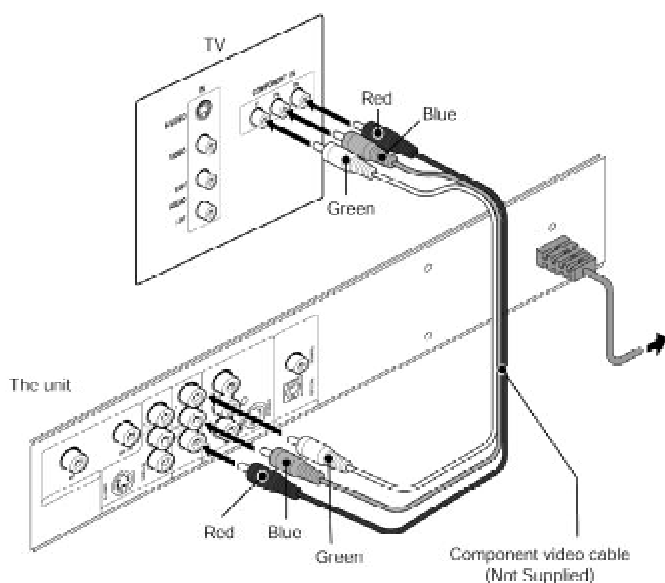
Notes:

When using the S-Video output jack, do not connect other VIDEO OUT jacks on the unit. Please set the correct video output for the DVD Recorder by pressing "SETUP" button on the remote control to setup. (see page 26 for details)

2. Component out

Connecting to a TV with component jacks

You can enjoy high-quality color viewing by using the Component video output instead of the standard video out jacks to connect this player to your TV.



Notes:

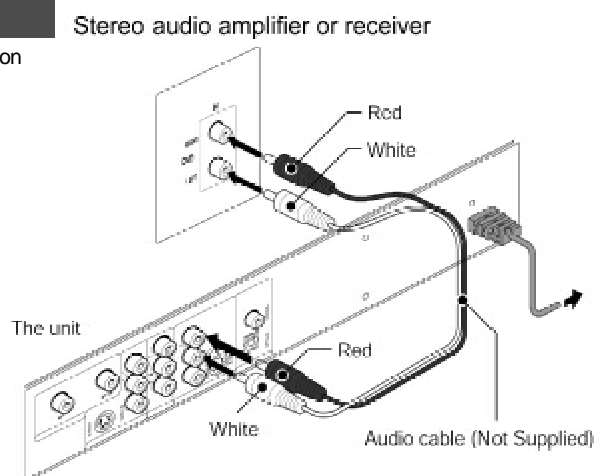
When using the Component output jack, do not connect other VIDEO OUT jacks on the unit. Please set the correct video output for the DVD Recorder by pressing "SETUP" button on the remote control to setup. (see page 26 for details)

For better audio quality

There are two types of audio connections, analog and digital.

Connecting to a stereo audio amplifier or receiver

Use an audio cord (same as supplied) to connect the **AUDIO OUT** on the player to the audio input on a stereo amplifier or a receiver.

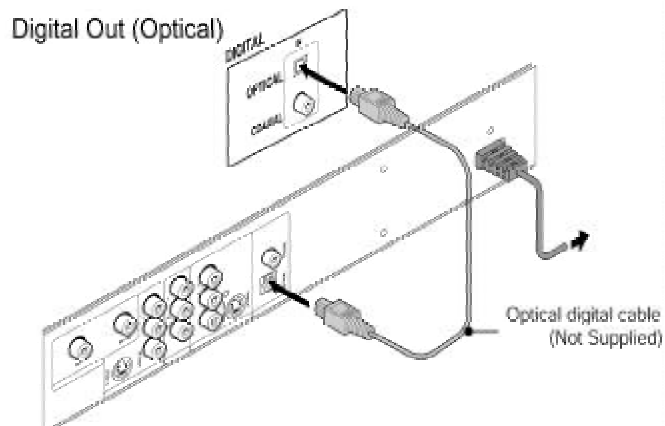


Connecting to a digital audio device

Connect an amplifier with Dolby Digital and DTS decoders to enjoy surround sound.

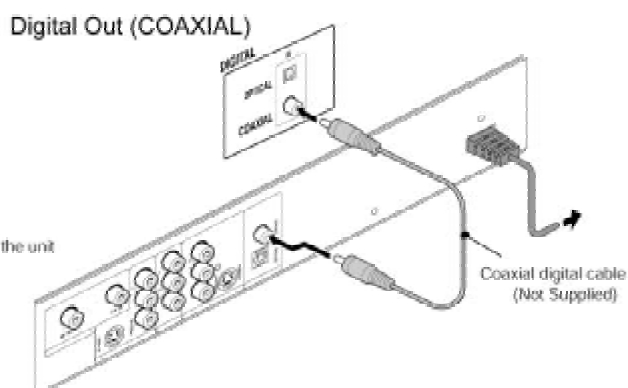
Digital out optical

Use a fiber-optic cable (not supplied) to connect the **DIGITAL OUT OPTICAL** (digital optical output) on the player to the digital optical input on an AV amplifier or a receiver.



Digital out coaxial

Use a coaxial cable (not supplied) to connect the **DIGITAL OUT COAXIAL** (coaxial digital output) on the player to the coaxial digital input on an AV amplifier or a receiver.



Quick setup

Initial setup

Remote control & Setup menu

Confirm the antennas are connected correctly, and follow the steps below to make the personal adjustments for using the DVD-Recorder.

1. Press [\odot POWER] to turn on the unit.
2. Press [SETUP] to display the setup menu.
3. Press [\blacktriangle] [\blacktriangledown] to select "System," "Language," "Playback," "Record," "Audio," or "TV Tuner" and press [\blacktriangleright] or [\blacktriangleleft] to return to the previous or next level of options.
4. Press [\blacktriangle] [\blacktriangledown] to select the item that you want to change and press [\blacktriangleright] or [Enter].
 - System** --- Video Output
 - System** --- Date ---> Time
 - Language** --- OSD
 - Playback** -- Aspect Ratio
 - Audio** --- Digital Output (PCM / Bit Stream)
 - Record** --- Quality (H,Q,SP,EP,SLP)
5. Press [ENTER] to confirm the setting.
6. Press [SETUP] to exit the setup menu or press [\blacktriangleleft] to return to the previous menu.

Notes:

To record TV programs using the Timer Record feature, you must set the time accurately.

Setting the date and time

If the date/time setting is incorrect, this could result in a power failure or disrupt TV broadcasting.

Set the date

1. Press [Setup] on the remote control. The setup menu will appear.
2. Select "System" using [\blacktriangle] or [\blacktriangledown] and press [ENTER].
3. Select "Date" using [\blacktriangle] or [\blacktriangledown] and press [ENTER].
4. Change the day/month/year in the highlighted field using [\blacktriangle] or [\blacktriangledown] or the numbered buttons (0-9) on your remote control and confirm by pressing [ENTER].
5. When all settings are done, press [\blacktriangleleft] to return to the main level.
6. To exit the setup menu, press [Setup].

Set the time

1. Press [Setup] on the remote control. The setup menu will appear.
2. Select "System" using [\blacktriangle] or [\blacktriangledown] and press [ENTER].
3. Select "Time" using [\blacktriangle] or [\blacktriangledown] and press [ENTER].
4. Change the "hour/minute/second" in the highlighted field using [\blacktriangle] or [\blacktriangledown] or the numbered buttons (0-9) on your remote control.
5. Change the "AM/PM" mode using [\blacktriangle] or [\blacktriangledown] and confirm by pressing [ENTER].
6. When all settings are done, press [\blacktriangleleft] until returning to the main level.
7. To exit the setup menu, press [Setup].

Notes:

Check that the clock is correctly set before setting the timer recording. If not, the timer recording cannot be made.

Progressive scan mode

You can change the video output mode when you press [SETUP] button and to select "**System-->Video Output-->Progressive**".

(Video will not be displayed correctly if connected to an incompatible television.)

Video output mode:

480i: Interlace video

480p: Progressive video



You must connect the component video input terminals to a **480p** compatible television.

Aspect ratio

Select "4:3" (regular) or "16:9" (widescreen) to suit your television. If you have a regular 4:3 television, you can also select how video on some discs is presented.

4:3 Letter Box

Select when you connect the unit to a normal (4:3) TV.

When playing back a DVD-VIDEO disc recorded in wide picture format, the picture is shown with black bars at the top and bottom.



4:3 Pan & Scan

Select when you connect the unit to a normal (4:3) TV.

When playing back a DVD-VIDEO disc recorded in wide picture format, the picture is zoomed to fill the screen vertically, and the left and right sides of the image are chopped off. Note, however, that the picture will be shown in the 4:3 LB mode even if you select the 4:3 PS mode depending on the disc.



16:9 Wide Screen

Select when you connect the unit to a wide-screen (16:9) TV.



Audio

Digital Output

PCM / Bit Stream

(Enable digital audio output with PCM or encoded data)

DTS Out

ON / OFF

TV channel setup

Automatic TV channel search

When the automatic channel search function is activated, the TV channels are searched and stored in a specific order. If the channel assignments of your TV content provider changes or if you are reinstalling the DVD-Recorder, you may need to start this procedure again. This will replace the stored TV channel with the new ones.

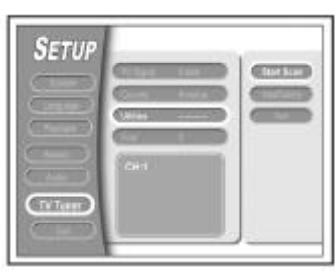
1.Ensure the antennas are securely connected to the DVD-Recorder.

2.Switch on the TV set and the DVD-Recorder.

3.Press [SETUP] to bring up the “SETUP” menu, press [▲] [▼] to select the “TV TUNER” and press [▶].

4.Press [▲] [▼] to select “Utilities” and press [▶].

5.Press [▲] [▼] to select “START SCAN” and press [ENTER] to start auto channel search.



6.The auto TV channel search starts. The procedure may take few minutes.

7.When all the TV channel have been searched and stored, press [SETUP] to exit.

Adding or deleting TV channels manually

After you have performed the automatic channel search, you may like to add or delete some of the TV channels. This function allows adding or deleting channel manually.

1.Press [SETUP] to display the “SETUP” menu, press [▲] [▼] to select the “TV TUNER” and press [▶].

2.Press [▲] [▼] to select “Utilities” and press [▶].

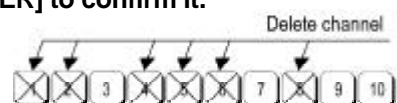
3.Press [▲] [▼] to select “Add/Delete” and press [ENTER] to bring up the add/delete menu.



Note:

Channel adding/deleting and swapping can be done with the Channel Editing function as well. (refer to page 13 for details)

4.Press [◀] [▶][▲] [▼] to select the channel(s) that you want to add or delete and press [ENTER] to confirm it.



Move the cursor to the TV channel and you can press [ENTER] again to cancel delete operation.

5.Press [◀] [▶][▲] [▼] to select “EXIT,” press [ENTER] to save setting and exit the add/delete menu.

Fine tuning TV channel manually

After you have performed the automatic channel search you may like to fine tune the TV channel signal manually. Follow the steps below to complete fine tune.

1.Press [SETUP] to bring up the “SETUP” menu, press [▲] [▼] to select the “TV TUNER” and press [▶].

2.Press [▲][▼] to select “FINE” and press [▶].

3.Press [▲][▼] to fine tune the channel signal.



Swapping TV channel manually (follows TV)

This function allows user to manually swap the TV channel order stored in DVD-Recorder to match the TV channel order stored in user's TV set.

1.Press [SETUP] to display the “SETUP” menu, press [▲] [▼] to select the “TV TUNER” and press [▶].

2.Press [▲] [▼] to select “Swap” and press [ENTER] to bring up the “SWAP” menu.

3.Select the TV channel(s) to be swapped and press [ENTER] to mark the TV channel.

4.Press [▲] [▼][◀] [▶] to select a new channel position and press [ENTER] to swap.



5.To swap more TV channels, repeat step “3” to complete the settings.

6.Select “EXIT” to save the setting and exit the “SWAP” menu.

Channel Editing

Before channel editing

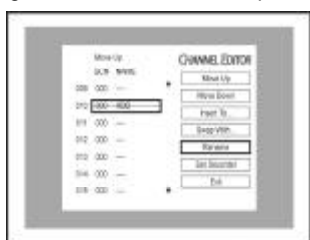
Ensure that the antenna cables are securely hooked up to the unit.

Adding or deleting TV channel manually

1. Turn on the TV set and the DVD-Recorder, and press [Source] to switch the input signal source of the unit to "TV."

2. Press [EDIT] to bring up the "Channel Editor" menu, press [▲] [▼] to select one of the TV channels and press [ENTER].

Move the cursor to the TV channel to make the selection and press [ENTER] again to cancel the delete operation.



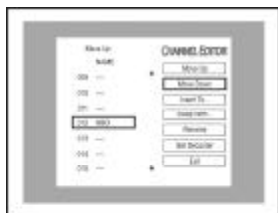
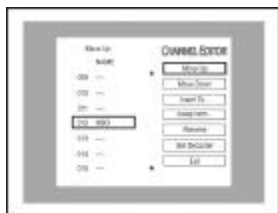
Moving up or moving down the TV channel

1. Press [EDIT] to bring up the "Channel Editor" menu, press [▲] [▼] to select one of the TV channels and press [▶].

2. Press [▲] [▼] to select "Move Up" or "Move Down" and press [ENTER].

The order of the TV channel will be changed.

Each time you press [▲] or [▼], the item changes as follows.



Renaming TV channels

1. Press [EDIT] to bring up the "Channel Editor" menu, press [▲] [▼] to select one of the TV channels and press [▶].

2. Press [▲] [▼] to select "Rename" and press [ENTER].

The display for entering a title name appears.

3. Select the desired characters from the keypad. Press [ENTER] after each entry.

4. When you finish entering the title name, press [◀] [▶] [▲] [▼] to select "Finish."



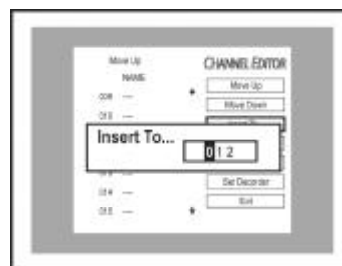
Notes:

You only can enter up to 8 characters for a name.

Inserting the TV channels

1. Press [EDIT] to bring up the "Channel Editor" menu, press [▲] [▼] to select one of the TV channels and press [▶].

2. Press [▲] [▼] to select "Insert to" and press [ENTER].



3. Press [◀] [▶] [▲] [▼] to enter the "Channel number," and press [ENTER]. The channel will be moved to where you want to.

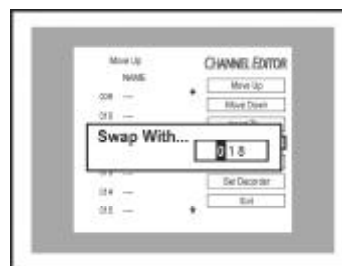
Swap TV channels

This function allows you to manually swap the TV channel order stored in the unit to match the TV channel order stored in your TV set.

1. Press [EDIT] to bring up the "Channel Editor" menu, press [▲] [▼] to select one of the "TV Channel" and press [▶].

2. Press [▲] [▼] to select "Swap with" and press [ENTER].

3. Press [◀] [▶] [▲] [▼] to enter the "Channel number," and then press [ENTER] to swap. The order of the channels will be swapped with the channel number selected.



4. To swap other TV channels, repeat step 3 to complete the settings.

5. Press [◀] [▶] [▲] [▼] to select "EXIT," press [ENTER] to save the setting and exit the "Channel Editor" menu.

Recording

Before recording

Cautions:

- 1.This DVD-Recorder records on both DVD+R and DVD+RW discs.
- 2.Please use recommended recordable DVD+R/RW discs to ensure the best recording quality. Check our Web site for the recommended disc list.
- 3.DVD+R is a write-once DVD disc.
- 4.DVD+RW is a re-writable DVD disc.
- 5.You cannot add new recording to DVD+R discs when the disc is finalized.
- 6.In some cases, you may not be able to add new recording to the recordable DVD discs that contain contents written on other DVD-Recorders.

Recording television programs

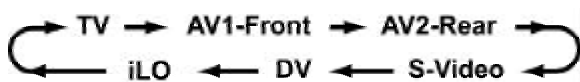
1.Press [ POWER] to turn the unit on.

2.Press [ OPEN/CLOSE] to open the tray and insert a recordable DVD disc.

Press the button again to close the tray.

When you insert a new recordable DVD disc, the DVD-Recorder will automatically starts the disc preparation process.

3.Press [SOURCE] to change the “signal-input source” and select the “TV” input.



4.Press [CH  ] or press [] [] to select the channel you want to record.



Notes:

You can also use the numbered buttons to select a channel.


4.Press [RECORD] to start recording.

After pressing [RECORD] , it may take a few moments to initialize.





Recording continues until you stop the recording or when disc is full.

To stop recording

When you press [ STOP] , it may take a few moments for recording to stop and the session to close.



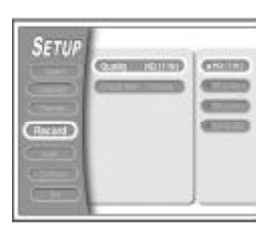
To pause recording

Press [ PAUSE] to pause recording, and press [ PAUSE] to resume recording.



To change the recording mode.

Press [SETUP].



Notes:

The new setting can't change the current recording mode but will be activated during the next session.

To check the disc status while recording

Press [DISPLAY] , the recording information appears.



Recording

Adding new recordings

Adding new recordings after other recording sessions.

Press [RECORD] to start recording, and press [■ STOP] at the point you want to stop.



Note:

Each new recording session is placed after the previous session unless a certain recording title is set to be overwritten. (see page 23 for details)

Change Chapter Interval

Creating chapters while recording

The DVD-Recorder can automatically divide a session into chapters by inserting chapter marks at 5/10/15/20/25/30-minute interval during the recording process.

1.Press [SETUP] to display the “SETUP” menu.

2.Press [▲] [▼] to select the “RECORD” and press [▶].

3.Press [▲] [▼] to select the “CHAPTER MARK” and to set up the time.



4.Press [SETUP] to exit the “SETUP” menu.

Notes:

- 1.You can also start recording using the “On-Screen menu.” Press [Osm] and select “RECORD” then press [ENTER], and follow the steps to set the recording mode.
- 2.Before you start, please ensure that the disc has enough available space for the recording.
- 3.You cannot change the channel or recording mode during recording.

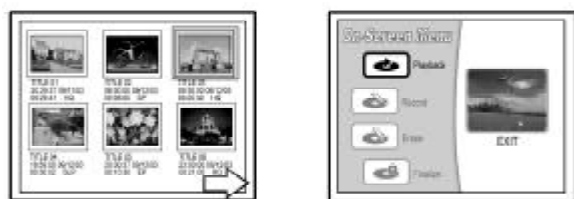
Playback with the DVD menu

Selecting a recorded session on a disc

The “DVD Menu” displays all the titles (programs) recorded on the disc and you can select the one you want to play.

1.Press [▶ PLAY] or [Osm]

The “DVD Menu” menu appears when you press [▶ PLAY] or when you press [Osm] to select “PLAYBACK” icon, and display all of the title (program) on the recordable DVD disc.

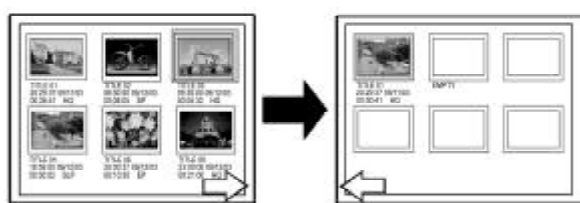


2.Press [◀] [▶] to select a title (program) you want to play and press [ENTER].



To scroll the “DVD Menu” display by page.

Press [◀] [▶] [▲] [▼] to select “◀” or “▶” icon or press [▶▶] NEXT) or [◀◀ PREVIOUS], and the entire “DVD Menu” advances to the next/previous page of recorded titles (programs).



Notes:

- 1.If a power failure occurs, the program you are recording may be lost.
- 2.Before you start, please check if the disc has enough available space for the recording.
- 3.You cannot change the channel or recording mode during recording.
- 4.Before playing a DVD+R disc on another player, you need to finalize the disc.

Recording

Recording from a VCR or V8 / Hi8 / DV

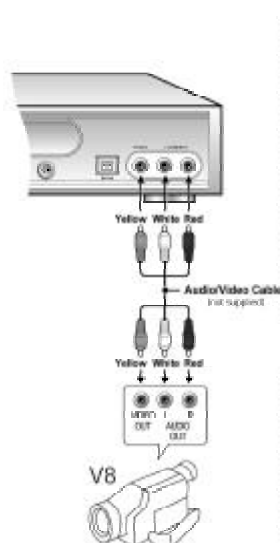
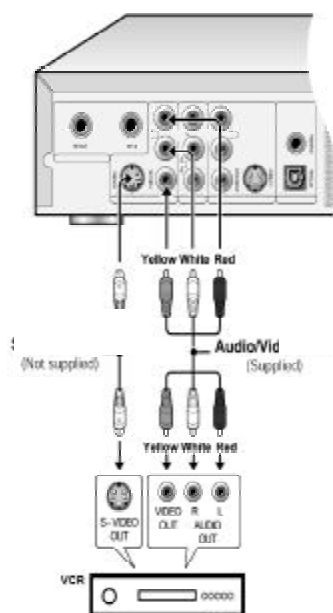
Before starting to record

This DVD-Recorder can accept standard CVBS (RCA) analog audio/video cable or IEEE-1394 cable and record Camcorder onto DVD in the digital video format of your choice. The unit functions much like a digital VCR. Examples of use include archiving videotapes or transferring from a Video Cassette Recorder or DV/ V8 Camcorder to a recordable DVD disc.

This DVD-Recorder allows basic DV control with the DVD Recorder's remote control when connected via the DV Link.

The front panel and rear panel connection

Connect a Video Cassette Recorder or V8 to the unit's input terminals.



To start recording

1. Press [SETUP] to select "RECORD" to set the recording mode. (HQ , SP , EP or SLP)



2. Place a recordable DVD disc on the tray with the disc's label facing up.

3. Press [SOURCE] to select the signal-input (TV, AV1-Front, AV2-Rear, S-Video, DV).



Notes:

When recording from the S-Video source, the audio input will be sourced from the red (right channel) and white (left channel) audio jacks (labeled "R" and "L", respectively) on the rear panel.

4. Start to play on the VCR or Camcorder.

5. Press [RECORD] on the DVD-Recorder to record your video/audio signal from the VCR or V8 Camcorder onto a recordable DVD disc.



6. Press [■ STOP] to stop recording.

To pause recording

Press [||> PAUSE] to pause recording, and if you want to restart recording, press the [||> PAUSE] button to resume recording.

Recording

DV recording

Before you to start to record DV contents

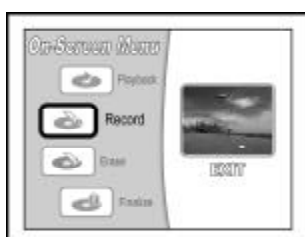
This DVD Recorder allows basic DV control functions with the Remote Control. The DVD Recorder is equipped with a camcorder control (Play, Stop, FF or Reverse) feature via the DV Link connection. Simply move the screen cursor to the desired function and press [ENTER] at DV input screen.

Use “On-Screen Menu” to record DV signal

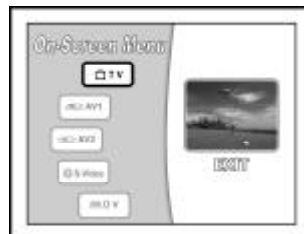
1. Power on your TV and this DVD-Recorder.
2. Place a recordable DVD disc on the tray. Make sure the disc's label is facing up.
3. Connect the DV cable (IEEE-1394 4pin cable) to both the DV Camcorder and the DVD-Recorder.



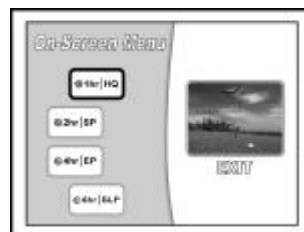
4. Power on the DV Camcorder. Start “Playback mode” on the DV Camcorder.
5. “Pause” the DV Camcorder where you want to record.
6. Press [Osm] on the remote control. This activates the On-Screen menu.
7. Press [▲] [▼] and to select “RECORD” icon, and press [ENTER] to confirm.



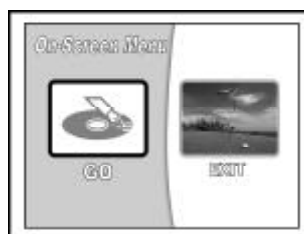
8. Press [▲] [▼] to select “DV” Input, and press [ENTER] to confirm.



9. Press [▲] [▼] to select the recording quality, and press [ENTER] to confirm.



10. Press [ENTER] to start recording.



Notes:

“DVD Auto Rec” icon appears when recording begins.

This DVD-Recorder will stay in “Pause” mode, when no DV input signal is detected.

10.To pause recording.

Press [||> PAUSE] on the remote control to pause recording .

Press [||> PAUSE] again, if you want to resume recording.

11.To stop recording.

Press [■]

Note:

Before playing a DVD+R disc on another player, you will first need to finalize the disc. (see page 25 for details)

Recording

“One Touch Record” to record DV contents

Before you start to record DV contents

When you do not need to operate your DV, this unit allows basic DV control on DVD Recorder Remote control.

1. Power on your TV and this DVD-Recorder.

2. Place a recordable DVD disc in the tray. Make sure the disc's label is facing up.

3. Connect the DV Cable (IEEE-1394 4-pin cable) to both the DV Camcorder and the DVD-Recorder.

4. Power on the DV Camcorder. Set “Playback mode” on the DV Camcorder.

5. “Pause” the DV Camcorder where you want to record.

6. Press [SOURCE] to change the “Signal-Input source” and select the “DV” input.



7. Resume DV Camcorder playback and press [RECORD] to start recording.



8. To pause recording.

Press [||> PAUSE] on the remote control to pause recording.
Press [||> PAUSE] again, if you want to resume recording.

9. To stop recording.

Press [■]

DV control

After recording is stopped, a DV control bar will appear on the screen. This allows basic DV control utilizing the DVD Recorder's Remote Control.



1. Press [◀] [▶] to select (▶▶), to fast-forward the DV Camcorder.

2. Press [◀] [▶] to select (◀◀), to rewind the DV Camcorder.

3. Press [◀] [▶] to select (■), to stop the DV Camcorder playing.

4. Press [◀] [▶] to select (▶), to start the DV Camcorder playing.

5. Press [◀] [▶] to select (||), to pause the DV Camcorder playing.

Notes:

1. The DV-Link input jack on this unit is for use with DV compatible camcorders only.
2. Only DV signals can be input to the DV-Link jack on this DVD Recorder.
3. Do not connect a MICRO MV format video camcorder to this DV-Link (IEEE-1394) jack.
4. You cannot connect more than two pieces of video input sources at a time to the front panel connector of this DVD-Recorder.

Timer Recording

Prior to timer recording

Please ensure that the recordable DVD disc has enough available space for the Timer Recording function. Before you start to record, follow the steps to set the date, time, picture quality and channel of the program or input source manually.

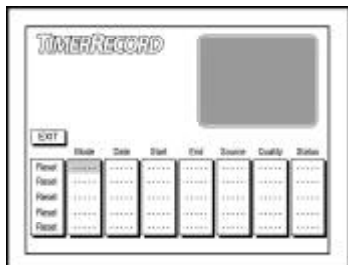
Setting the timer

1. Press [POWER] to turn the unit on.

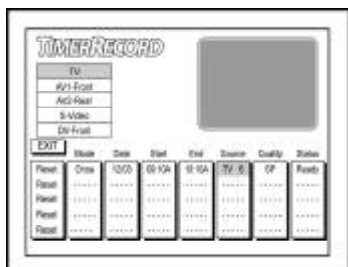
2. Press [OPEN/CLOSE] to open the tray and place a recordable DVD disc on the tray.

If you use a blank recordable DVD disc, disc preparation process will start automatically in the background.

3. Press [TIMER] to display the “Timer-Record” menu.



4. Press [] [] to select from the timer setting list and press [].



5. Press [] [] to select the “Mode,” and then press [ENTER].

Each time you press [] [], the item changes as follows.

Mode: Once <-> Weekly <-> Daily

6. Press [] [] to select the “Date,” and then press [ENTER].

Each time you press [] [], the item changes as follows.

For Once: **DATE: 1 2 : 2 5 (MM/DD)**

For Weekly: **DATE: SAT
(SUN/MON/TUE/WED/THU/FRI/SAT)**

For Daily: **DATE: X X : X X**

7. Press [] [] to select the “Start Time,” and then press [ENTER] to set the “Recording start time.”

TIME: 0 1 : 2 8 A (HH/MM/AM or PM)

8. Press [] [] to set the “End Time,” and then press [ENTER] to set the “Recording end time.”

9. Press [] [] to select the “Source,” and then press [ENTER] to set the “Recording source.”

TV <-> AV1-Front <-> AV2-Rear <-> S-Video <-> DV

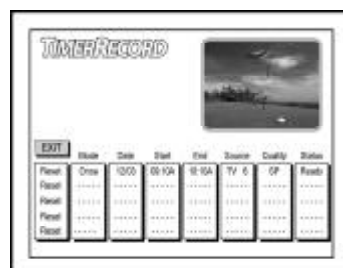
10. Press [] [] to select the “Quality,” and then press [ENTER] to set the “Recording quality.”

Mode: HQ <-> SP <-> EP <-> SLP

If you enter a wrong selection

Press [] [] to re-select the item you want to change.

11. Press [] [] to select the “Exit,” and then press [ENTER] to exit the “Timer-Record” menu.



12. Press [POWER] to turn off the unit and to start Timer Recording function.

Notes:

1. When the Timer Recording function is active, the “Timer LED” on the DVD Recorder front panel will illuminate.
2. Unit must be off for timer.

To stop recording during Timer Recording

When you press [STOP], it may take a few seconds for recording to stop.

To check the recording status while Timer Recording

Press [DISPLAY], the Timer Recording information appears on-screen.

Playback

DVD/VCD/SVCD video disc playback

Before you begin to enjoy the digital world of audio and video on DVDs, please ensure that you have made the correct settings in the Setup menus. These settings should correspond to the capabilities of your home system. Having made the correct settings, you are now ready to use the player to enjoy DVDs, Video CDs, and CDs.

Basic playback

Turn on the television and select the appropriate video input on the television to suit the connections for the player.

■ Press [POWER] to turn on the unit.

Press to turn the unit on or off.

Lights up in red when the power is off.

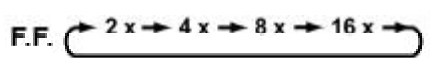
■ Press [OPEN/CLOSE] to open the disc tray.

Place the disc in the tray, label-side up.

■ Press [PLAY] to start playback.

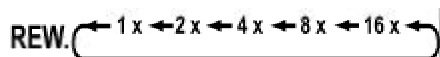
■ Press [F.F.] to perform fast forward scanning.

Press repeatedly to play the disc forward at 2x, 4x, 8x, or 16x speeds.



■ Press [REW] to perform fast reverse scanning.

Press repeatedly to play the disc reverse at 1x, 2x, 4x, 8x, or 16x speeds.



■ Press [NEXT] to advance to the next chapter/track.

Press repeatedly to skip to the next chapter during playback.


■ Press [PREVIOUS] to reverse to a previous chapter.

Press repeatedly to return to the beginning of previous chapters during playback.

■ Press [PAUSE/STEP] to pause playback.

■ Press [PAUSE/STEP] again to start “frame by frame mode.”

Press repeatedly to advance DVDs and Video CDs frame by frame during playback in pause mode.

Press [ PLAY] to restart normal playback.

■ Press [STOP] to stop playback.

■ Press [DISPLAY] to display disc status during playback.

■ Press [TOP MENU] to display the thumbnail icons menu on the TV screen.

Press to return to the DVD's title or disc root menu for the current title during playback.

VCD

SVCD

Press [0, 1~9] the numbered buttons to select an item of the title menu.

DVD

Press [] [] [] [] to select an item and press [ENTER].

DVD TITLE



Sample Thumbnail Icons display.

■ Press [MENU] to display the chapter menu on the TV screen.

Press [] [] [] [] to select an item and press [ENTER].

Notes:

The [MENU] button only functions while the unit is in playback mode. Depressing this button during other operations won't work on this unit.

■ Press [CM skip] to skip forward 30 seconds during playback.

Playback

Navigation operation

During playback, press [**▶●Navi.**] to display the "Navigation" menu.



SUBTITLE During playback to select a subtitle language from those available on the current disc.



Notes:

Some DVDs include subtitles in different languages. If you want to choose subtitles, follow these steps.

SLOW MOTION

Enables the selection of a slow-motion speed. You can choose to play the Disc at +1/2x, +1/4x or -1/2x, -1/4x.

SEARCH Initiates the search capability for locating a desired position in the current title or track (time search). Press the numeric buttons (0 to 9) to enter the desired time or title.

Example (for DVD-VIDEO)

To playback from
TITLE:CHAPTER : 001/001
or **TIME:0 1 : 2 7 : 3 3 (H:M:S)**

Example (for SVCD/VCD)

To playback from
TIME:0 1 : 2 7 : 3 3

Press [**◀**] to correct a mistake.
Press [**◀**] repeatedly to move back to the digit where you entered a wrong number, and reenter the correct one.
Press [**ENTER**] to start playback from the specified time.

Notes::

Moving the cursor left through each menu takes you to the previous level. Moving the cursor left at the first menu selection closes the dialog box.

A-B REPEAT

Repeating a desired part.
Select "Point A" at the beginning of the part you want to repeat.
Select "Point B" at the end of the part you want to repeat.
The unit locates "A" and starts repeat playback between "A" and "B."
Select [**Cancel**]. The A-B repeat mode turns off, then normal playback continues.

AUDIO To select a different audio language or soundtrack during DVD playback.



Notes:

Multiple languages or soundtracks must be available on the DVD.

ANGLE To select a different camera angle during DVD playback.



Notes::

The Multiple Angles capability must be available on the DVD. (within the current title) or track for playback.

INFORMATION

To enable or disable the DVD/VCD/SVCD disc information.

To exit the Navigation

Press [**▶●Navi.**] again or [**◀**] to exit the "Navi" mode.

JPEG/MP3 file and Audio CD playback

The unit can play an Audio CD, JPEG, or MP3 file on a disc.

JPEG file playback

Playing JPEG files

1.Place the JPEG disc on the tray.

The disc will begin playback automatically.

2.Press [◀] or [▶] to advance to the next picture, or return to the previous picture.



3.Press [▲][▼] to select “Rotate RIGHT” or “Rotate LEFT” and “Rotate UP” or “Rotate DOWN.”



4.Press [||▶ PAUSE] to pause the picture playback.

5.Press [■ STOP] to stop the picture playback.

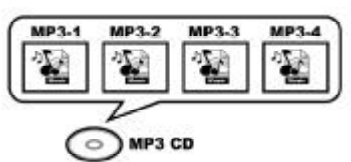
MP3 file playback

Playing MP3 files

1.Place the MP3 disc on the tray.

The disc will begin playback automatically.

2.Press [▶▶ NEXT] or [◀◀ PREVIOUS] to advance to the next or return to previous MP3 files.



3.Press [||▶ PAUSE] to pause the MP3 file playback.

4.Press [■ STOP] to stop the MP3 file playback.

Audio CD playback

Playing Audio CDs

1.Place the Audio CD on the tray.

The disc will begin playback automatically.

2.Press [▶▶ NEXT] or [◀◀ PREVIOUS] to advance tracks or return to previous track.

3.Press [||▶ PAUSE] to pause the playback.

4.Press [■ STOP] to stop the playback.

5.Enter the numbered button (0~9) to select the desired audio track, and press [ENTER].

Begin playing from a selected track.

Slide show

Concurrent play JPEG and MP3 files on the same disc.

1.Place the disc on the tray.

The disc will begin playback automatically.

2.Press [▶▶ PLAY] to start playback.

3.Press [▶▶ NEXT] or [◀◀ PREVIOUS] to advance to the next or previous MP3 files.

Or press [◀] [▶] to skip the picture.

4.Press [▲][▼] to select “Rotate RIGHT” or “Rotate LEFT” and “Rotate UP” or “Rotate DOWN.”

5.Press [||▶ PAUSE] to pause the slide show playback.

Press [■ STOP] to stop the slide show playback.

Notes:

- 1.If an MP3 file name includes any 2-byte character, the unit may not display the file name correctly.
- 2.The unit cannot support ID3 tag.
- 3.The unit does not support MP3-Pro or WMA files.
- 4.The unit supports discs recorded with multiple sessions.
- 5.The unit only can playback picture or tracks with the following file extensions; JPG or jpg and MP3 or mp3 etc.
- 6.The time required for reading disc contents may vary for different discs. This is dependent upon the numbers of groups (folders) and tracks (files) recorded and etc.
- 7.You cannot advance or reverse playback by pressing F.F. or REW. during JPEG/MP3 disc playback.
- 8.You cannot play audio track by pressing the numbered buttons during MP3 disc playback.
- 9.This unit supports MP3 file bitrates of: 32Kbps ~ 320Kbps.

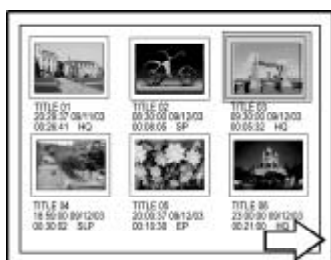
Editing

Before starting to edit

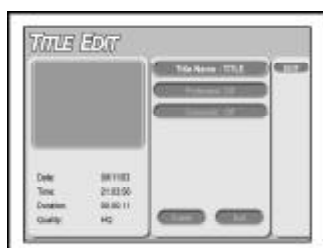
This section explains the basic editing functions on the unit. Please finish all the editing before finalizing the disc. You cannot edit a finalized disc.

DVD menu and Edit menu

1. Press [▶PLAY] or [MENU] to display the "DVD Menu."



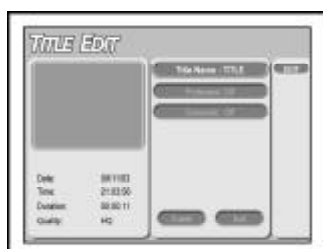
2. Select the session you like to edit.
3. Press [EDIT] to display the "Title Edit" menu.



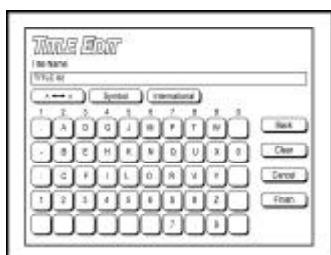
Naming a title

1. Press [▲] [▼] to select "Edit" icon, and then press [ENTER].

The display for entering a title name appears.



2. Select the desired characters from the keypad, and press [ENTER] after each entry.



Notes:

1. You only can enter up to 8 characters for a name.

3. When you finish entering the title name, and press [◀] [▶] [▲] [▼] to select "Finish."

Protecting a title

1. Press [▲] [▼] to select "Protection," and then press [ENTER].



2. Press [◀] [▶] to select the "On," and then press [ENTER].

Notes:

1. You can protect the recorded titles on DVD+R/+RW discs.
2. When a title is protected, it cannot be erased or overwritten.

Overwrite a title

1. Press [▲] [▼] to select "Overwrite," and then press [ENTER].



2. Press [◀] [▶] to select "On," and then press [ENTER].

The "Overwrite" mode is set.

CAUTIONS:

1. For DVD+R disc recording each new recording is always placed right after the previous recording. The original recordings cannot be overwritten.
2. For DVD+RW discs, each new recording session can either be placed right after the previous recording or directly overwrite the selected recording title.
3. When the overwrite function is turned on, the recording can be overwritten. When the function is turned off, the subject cannot be overwritten. The overwrite function is turned off as the default setting.

Erasing a title

1. Press [▲] [▼] to select "Erase," and then press [ENTER].

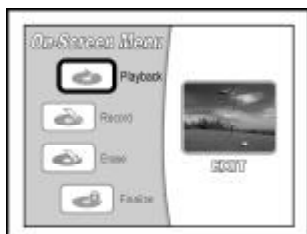
Note:

1. You can erase the recorded titles on DVD+R/RW discs.
2. After erasing the titles on the DVD+R discs, the erased space could not be utilized or re-allocated.

On Screen Menu

Playback

1. Press [Osm] to display the “On-Screen menu.”



2. Press [] [] to select the “Playback” icon and then press [ENTER].
The “DVD Menu” appears.

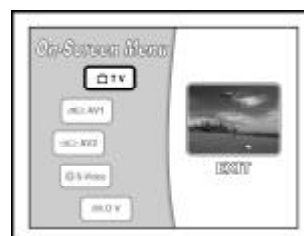


3. Press [] [] to select a title (program) you want to play and press [ENTER].

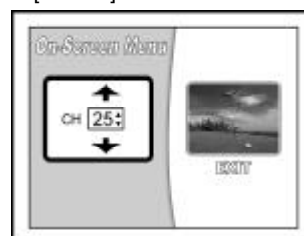
Press [PAUSE] to pause playback.
Press [PLAY] to resume normal playback .

Press [STOP] to stop playback.

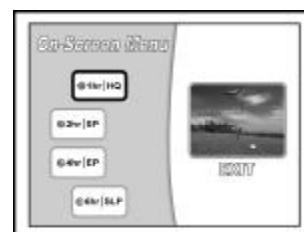
3. Press [] [] to select the signal- input (TV, AV1-Front, AV2-Rear, S-Video, DV) and press [ENTER].



If you select “TV”, press [] [] to select the channel you want to record and press [ENTER].

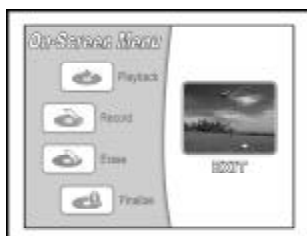


4. Press [] [] to select the recording mode and press [ENTER]. (HQ , SP , EP or SLP)

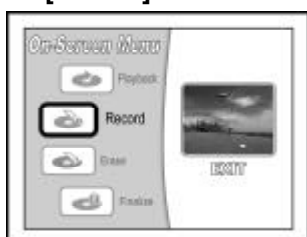


Record

1. Press [Osm] to display the “On-Screen menu.”



2. Press [] [] to select the “Record,” and then press [ENTER].



Recording Mode	Recording Time (on empty 4.7GB disc)
HQ	60 minutes
SP	120 minutes
EP	240 minutes
SLP	360 minutes

5. Press [ENTER] to confirm recording.
6. Press [STOP] to stop recording.
7. Press [PAUSE] to pause recording.

Notes:

- 1.You can select “EXIT” or press [OSM] button again to exit the “On-Screen” menu.
- 2.You may use either DVD+RW or DVD+R discs to record.

On-Screen Menu

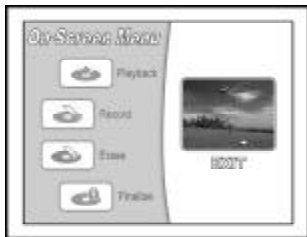
Erase

Before you activate the erase function, make sure that important contents are safely backed-up. All contents on the disc will be permanently erased.

CAUTIONS:

For DVD+RW disc, you can create an empty disc with the “erase” function.

1. Press [ Osm] to display the “On-Screen Menu.”



2. Press [▲] [▼] to select “Erase,” and then press [ENTER].



The DVD-Recorder starts the disc preparation process.



3. When the disc preparing process is completed, press [ENTER] to exit the erase menu.

Finalize

CAUTIONS:

For DVD+R disc:

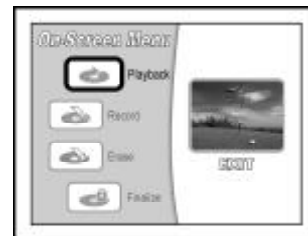
Finalizing is necessary when you play discs recorded with this unit on other DVD player or PC.

You must finalize the DVD+R disc before it can be played-back on other DVD players.

Notes:

For DVD+RW disc, finalizing is NOT required.

1. Press [ Osm] to display the “On-Screen Menu.”



2. Press [▲] [▼] to select the “Finalize,” and then press [ENTER].



3. Press [ENTER] to start .

The recorder starts finalizing the disc.

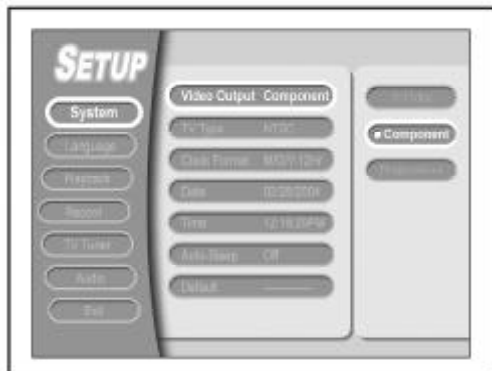
Notes:

1. During “Erase” or “Finalize” operations, you can select “EXIT” or press [OSM] button again to exit the “On-Screen menu.”
2. You may use either DVD+RW or DVD+R discs to record.

GUI operation

Changing settings

This chart displays the settings for this unit. Change the settings to suit your preferences and to setup the unit in the environment in which it is being used.



- 1) Press [SETUP] to display the setup menu.
- 2) Press [▲] [▼] to select "System" "Language" "Playback" "Record" "Audio" or "TV Tuner," and press [▶] or press [◀] to return to preview layer.
- 3) Press [▲] [▼] to select the item and press [▶] or [ENTER].
- 4) Press [▲] [▼] to set the option and press [ENTER].

To exit the SETUP menu

Press [SETUP] or and press [◀] until you return to the main level.

System

Video Output

Switch video output signal.

S-Video Component Progressive

Note:

Setting of the Video Output can be changed by pressing the video button on the remote control.

When the Video Output is set to be S-Video or Component, the unit is workable when either the S-Video, Component or Composite output terminal is connected to its source though the signal quality will differ from one another depending on the actual connection made.

Clock Format

Select the clock format to set the system clock.

M/D/Y-12Hr D/M/Y-12Hr Y/M/D-12Hr
M/D/Y-24Hr D/M/Y-24Hr Y/M/D-24Hr

Date

Set the date of the system clock.

Time

Set the time of the system clock.

HH:MM:SS AM/PM

Auto-Sleep

Off/30/60/90/120mins

Default

---- (Off) Restore

Language

OSD

Select a system operating language. The options are :

English, Traditional Chinese, Simplified Chinese,
Francais, German, Italian, Spanish, Dutch, Danish,
Polish, Swedish, Finnish.

Menu Language

Select a menu operating language. The options are :

English, Chinese, French, German, Italian, Spanish

Audio Language

Select a audio operating language. The options are :

English, Chinese, French, German, Italian, Spanish

Subtitle Language

Select a subtitle operating language. The options are :

English, Chinese, French, German, Italian, Spanish

Playback

Aspect Ratio

Settings of audio and video parameters when playing back.

16:9 Wide 4:3 Pan 4:3 L.Box

Parental

Set content control for supported DVD.

Set Level (Off , 1~8)

The parental control levels are:

1: Kid Safe 2: G 3: PG
4: PG-13 5: PG-R 6: R
7: NC-17 8: Adult Off

Password

Set a system protect password. Password is needed for the changing the setting.

OLD Password (XXXX) *(Default:0000)
NEW Password (XXXX)
Confirm (XXXX)

Slide Time

Set the slide show interval while playing JPEG files.

Off 3~99 Seconds

VCD PBC

Enable/Disable play back control for VCD and SVCD.

ON OFF

Record

Record Quality

Set the default quality of recording.

HQ (1hr) SP (2hrs)
EP (4hrs) SLP (6hrs)

Chapter Mark

Set the interval of chapter auto-insertion while recording.

Off 5/10/15/20/25/30 mins

GUI Operation

Audio

Digital Output

Settings of digital audio output.

PCM (Enable digital audio output with PCM data)

Bit Stream (Enable digital audio output with encode data)

DTS Output

Enable/Disable Digital Theater System output.

ON (Enable Digital Theater System mode)

OFF (Disable Digital Theater System mode)

TV Tuner

TV Signal ---> Antenna or Cable

(Select the type of antenna input)

Country ---> Select your location

Utilities ---> Start Scan or Add/Delete or Swap

(Select to start re-scanning channel or add/delete a channel or to swap the TV channel)

Fine --> -24 ~ -1 0 +1 ~ +24

(Select to fine tune the channel frequency manually)

Glossary

480i/480p

Indicates the number of scanning lines and scanning format of an image signal.

480i indicates 480 scanning lines with interlace format, and 480p indicates 480 scanning lines with progressive format.

Aspect ratio

Aspect ratio refers to the length to height ratio of TV screens. The ratio of a standard TV is 4:3, while the ratio of a high-definition or wide TV is 16:9. The letter box allows you to enjoy a picture with a wider perspective.

Bitstream

The digital form of multi-channel audio data (e.g., 5.1-channel) before it is decoded into its various channels.

Chapter / Title

Chapter is the smallest division and title is the largest division on a DVD VIDEO. A chapter is a division of a title and similar to a track for Video CD or Audio CD.

Component video

Video signals with three channels of separate information that makes up the picture. There are some types of component video, such as R/G/B and Y/Cb(Pb)/Cr(Pr).

Composite video

A single video signal commonly used in most consumer video products that contains all luminance, color, and synchronization information.

Dolby Digital®

A six-channel system consisting of left, center, right, left rear, right rear and LFE (Low-Frequency Effect channel, for use with a sub-woofer) channels. It requires a Dolby Digital® decoder, either in the player or in an external receiver to regenerate the sound. All processing is done in the digital domain.

Not all Dolby Digital discs contain six (5.1) channels of information.

DTS® (Digital Theater Systems)

DTS® stands for Digital Theater Systems. DTS® is a Digital Surround audio encoding format configured with six (5.1) channels, similar to Dolby Digital®. It requires a DTS® decoder, either in the player or in an external receiver to regenerate the sound. All processing is done in the digital domain.

Not all DTS discs contain six (5.1) channels of information.

DVD-R

DVD-R is a recordable disc that is the same size as a DVD-Video. Contents can be recorded only once to a DVD-R, and will have the same format as a DVD-Video.

DVD-RW

DVD-RW is a recordable and rewritable disc that is the same size as a DVD-Video. DVD-RW has two different modes: VR mode and Video mode. DVD created in video mode has the same format as a DVD-Video, while discs created in VR (Video Recording) mode allow the contents to be programmed or edited.

DVD+R

DVD+R is a recordable disc that is the same size as a DVD-Video. Contents can be recorded only once to a DVD+R, and will have the same format as a DVD-Video.

DVD+RW

DVD+RW is a recordable and rewritable disc. DVD+RW uses a recording format that is comparable to a DVD-Video format.

Interlace output

NTSC, the video signal standard, has 480 interlaced (I) scan lines. The Interlaced scanning system places lines of the second half of the picture in-between lines of the first half of the picture.

JPEG

A popular file format for still image compression and storage.

JPEG stands for "Joint Photographic Experts Group". There are two sub-types of the JPEG format as follows.

- Baseline JPEG: used for digital cameras, the web, etc.
- Lossless JPEG: an old type, rarely used now.

Linear PCM audio

PCM stands for "Pulse Code Modulation". Linear PCM is the usual method for digitally encoding audio without compression, and is used for the audio tracks on DVD VIDEO discs, Audio CDs, etc.

MP3

MP3 (MPEG1 audio layer 3) is a compressed audio file format. Files are recognized by their file extension ".mp3" or ".MP3".

MPEG

MPEG stands for "Motion Picture Experts Group". This is an international standard for compression of moving images. On some DVDs, digital audio has been compressed and recorded in this format.

NTSC (National Television System Committee)

The initials stand for National Television Standards Committee. This is the committee that established the standards for television systems in the United States. The NTSC standard broadcasts 525 or 480 lines of resolution per second, and 30 frames per second of refresh rate, 60 Hz field frequency. NTSC TV system is widely used in USA, Canada, Latin America and Taiwan etc.

PAL (Phase Alternation by Line)

PAL (Phase Alteration Line) is the color television broadcast standard throughout the Western Europe (except in France, where SECAM is the standard), Australia, China, Singapore and Malaysia etc. It has 625 lines of vertical resolution per second and 25 frames per second refresh rate, 50 Hz field frequency.

PBC

Playback Control. A special feature on a Video CD or Super VCD that enables interactive use.

S-Video

A video signal which improves picture quality over standard composite connections. Used on Super VHS, DVD, high end TV monitors, etc.

Track

SVCD, VCD, Audio CD discs use tracks to divide up the content of a disc.

Specifications

MEDIA TYPES SUPPORTED (Read Only):

DVD-R/RW, DVD+R/RW, DVD-ROM, CD-R/RW, CD-ROM

CONTENT FORMAT SUPPORTED :

- 1) DVD-Video
- 2) DVD+VR (DVD+VR format is compatible with DVD-Video in most case)
- 3) Video CD
- 4) Super VCD
- 5) Audio CD
- 6) MP3
Maximum number of files recognizable : 1000 files
Compression rate : between 32 kbps and 320 kbps
- 7) JPEG
Maximum number of pictures recognizable : 1000 files

RECORDABLE DISC SUPPORTED:

- 1) DVD+R (DVD+VR Mode)
- 2) DVD+RW (DVD+VR Mode)

VIDEO RECORDING QUALITY

Mode	Hour	Bit Rate	Encode	NTSC	PAL
HQ	1	9.5Mbps	MPEG2	720X480	720X576
SP	2	5.1Mbps	MPEG2	720X480	720X576
EP	4	2.5Mbps	MPEG2	352X480	352X576
SLP	6	1.7Mbps	MPEG1	352X240	352X288

VIDEO RECORDING FORMAT

MPEG2: DVD+VR (HQ/SP/EP), SVCD

MPEG1: DVD+VR (SLP mode), VCD

TV STANDARD & VIDEO RESOLUTION

	NTSC	PAL
Scan Frequency	60Hz	50Hz
Number of lines	525 lines	625 lines
DVD-Video		
• Horiz.Resolution	720 pixels	720 pixels
• Vertical Resolution	480 lines	576 lines
SVCD		
• Horiz.Resolution	352 pixels	352 pixels
• Vertical Resolution	480 lines	576 lines
VCD		
• Horiz.Resolution	352 pixels	352 pixels
• Vertical Resolution	240 lines	288 lines

VIDEO PERFORMANCE

DA Converter	10-bit/54MHz
Composite Output	1 Vpp 75 Ohm
SCART Output	CVBS/RGB/S-Video
Components Output	Y : 1 Vpp 75 Ohm P _b : 0.7 Vpp 75 Ohm P _r : 0.7 Vpp 75 Ohm

AUDIO RECORDING FORMAT

DVD+VR (HQ/SP/EP/SLP): Dolby Digital 2-channel

AUDIO PERFORMANCE

DA Converter	24-bit/96KHZ
AD Converter	24-bit/96KHZ
Signal-Noise (1kHz)	≥90dB
Dynamic Range (1kHz)	≥80dB
Cannel Separation (1kHz)	≥110dB
Total Harmonic Distortion (1kHz)	≤70dB

TUNER

TV format	NTSC
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CONNECTIONS

FRONT PANEL

Video Input	RCA Connector (yellow) x1
Audio L/R Input	RCA Connector (white/red) x1
IEEE 1394 Input	Mini jack x1

REAR PANEL

Video Input	RCA Connector (yellow) x1
Audio L/R Input	RCA Connector (white/red) x1
S-Video Input	4-Pin Mini DIN x1

Video Output	RCA Connector (yellow) x1
Audio L/R Output	RCA Connector (white/red) x1
S-Video Output	4-Pin Mini DIN x1
Component /	Y, P _b , P _r (Green/Blue/Red) x1
Progressive Scan Output	

Digital Audio Output	Coaxial x1
	Optical x1

GENERAL

Power Supply	AC 110V , 60 Hz
Power Consumption	36 W
Operating Temperature	+5°C to +40°C (+36°F to +104°F)
Operating Humidity	5% to 80% RH
Dimensions(W/H/D):	420 x 52 x 268 mm
Net Weight:	2.8 kg

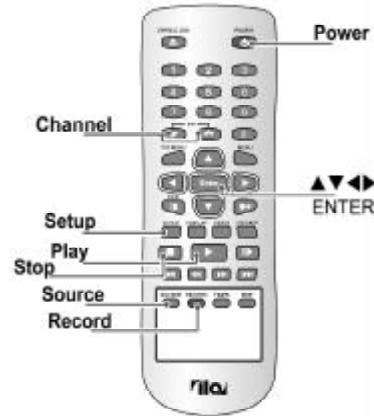
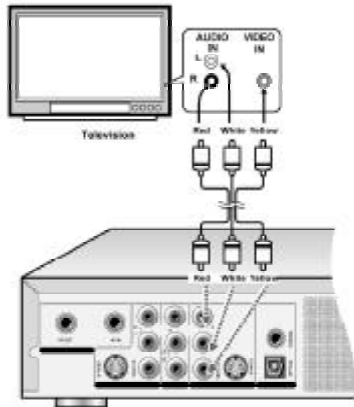
Notes:

The specifications and design of this product are subject to change without notice.

Quick installation guide

Connection to a television

(for reference only)

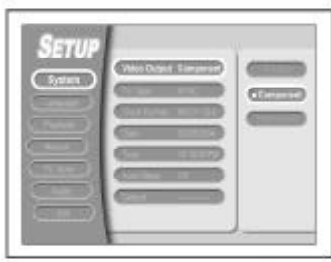


Initial setup

Remote Control & Setup Menu

When you turn on the unit for the first time after purchase, press [SETUP] and follow the steps to set the unit.

1. Press [⏻ POWER] to turn on the DVD-Recorder.
2. Press [SETUP] to appear the setup menu on the TV screen.
3. Press [▲] [▼] to select the "System," "Language," "Playback," "Record," "Audio," "TV Tuner" of the setup menu.
4. Press [▶] or [ENTER] and [▲] [▼] to select the item you want to change.



About Playback :

Language : Language-----> OSD (see page 26)
 Aspect Ratio: Playback----->TV Aspect (see page 26)
 Video out : System----->Video Output (see page 26)
 Audio out : Audio-----> Digital Out (see page 27)

About Record :

System Time : System--->Date / Time (see page 26)
 Record Quality : Record--->Quality (see page 26)
 Chapter Mark : Record--->Chapter Mark (see page 26)
 TV Signal : TV Tuner-->TV Signal (see page 27)

5. Press [SETUP] to leave the setting menu.



Video will not be displayed if the selected video output on the player is different from the video output connection.

System setting

System Language

Select system operating language.

"ENGLISH, TRADITIONAL CHINESE, SIMPLIFIED CHINESE, FRANCAIS, GERMAN, ITALIAN, SPANISH."

TV Aspect

Select "4:3 Letter Box" or "4:3 Pan Scan" or "16:9 Wide Screen" to suit your TV.

Video Output

There are 3 types of video outputs available on this unit, including S-Video, Component, and Progressive.

Connect the correct video cable from the unit to the display unit and select the correct video output by pressing the [SETUP] button to setup.

Audio Output

This unit is capable of both analog and digital audio output.

Connect analog audio output by connecting RCA cables to audio Jacks on the back of unit.

For the best audio effect, use digital optical cable to output the digital audio signal to the amplifier with Dolby Digital® & dts® decoder.

Record setting

Record Quality

Set the default recording mode. Select a quality you want to record "HQ, SP, EP, SLP". (see page 24)

Chapter Mark

Automatically divide a title (program) into chapters by inserting chapter marks at 5/10/15/20/25/30 minutes intervals during recording.

Quick Installation Guide

Recordable disc

Disc formats supported

DVD+R
DVD+RW



Playable disc

Disc formats supported

DVD-VIDEO/DVD-R/DVD-RW/DVD+R/DVD+RW/
CD-R/CD-RW/Audio CD/VCD/SVCD/JPEG/MP3

Video formats supported

MPEG2: DVD-Video, DVD+VR, SVCD
MPEG1: VCD

Audio formats supported

AUDIO CD / MP3 file

Basic play

Turn on the television and select the appropriate video input on the television to suit the connections for the player.

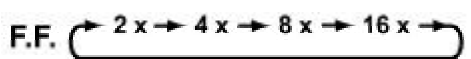
- Press [POWER] to turn on the unit.

Press to switch the unit on.

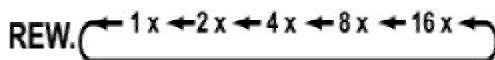
- Press [OPEN/CLOSE] to open the disc tray and place the disc label-up on the disc tray.

- Press [PLAY] to start playback.

- Press [F.F.] to perform fast forward scanning.
Press repeatedly to play the disc forward at 2x, 4x, 8x, 16x.



- Press [REW.] to perform fast reverse scanning.
Press repeatedly to play the disc reverse at 1x, 2x, 4x, 8x, 16x.



- Press [NEXT] to advance to the next chapter/track.
- Press [PREVIOUS] to reverse to a previous chapter.
- Press [PAUSE] to pause playback.
- Press [STOP] to stop playback.
- Press [TOP MENU] to a disc menu appears on the TV screen.
- Press [MENU] to a chapter menu appears on the TV screen.
- Press [CM skip] to fast-forward the disc playback by 30 secs.

Recording from a TV , VCR or Hi-8 / V8 / DV

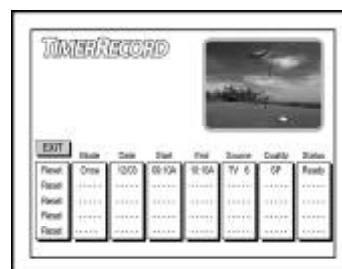
- Press [**SETUP**] to select "RECORD" and to set the recording mode. (HQ , SP , EP or SLP)
- Place a recordable DVD disc on the tray , with the disc's label facing up.
- Press [**SOURCE**] to select a signal-input (TV , AV1-Front , AV2-Rear , S-Video, DV-Front).
- Start play on the Video Cassette Recorder or Hi-8/DV/V8/ VCR , or change the TV-channel.
- Press [**RECORD**] to record your video/audio signal from the Video Cassette Recorder or DV/V8/Hi-8 ,TV program onto a recordable DVD disc.
- Press [STOP] to stop recording.

Timer recording

Setting the timer

- Press [**TIMER**] to appear the "Timer Record" menu.
- Press [] to select an item and to set the date.

To set the "Mode-->Once-->Weekly-->Daily"
To set the "Date-->Month-->Day"
To set the "Start Time-->Hour-->Minute"
To set the "End Time-->Hour-->Minute".
To set the "Source-->TV-->AV1-Front-->AV2-Rear--> S-Video-->DV"
To select the "Quality-->HQ-->SP-->EP-->SLP"
- When setting is completed, select the "EXIT" icon and press [**ENTER**] to exit the timer recording menu.
- Press [**POWER**] to turn off the unit and start timer recording.



During the timer recording , you can press [STOP] to stop recording.